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RADIOGRAPHY AND BANKRUPTCY RISK ANALYSIS OF AN ENTERPRISE

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Abstract
One of the main conditions for ensuring a satisfactory degree of security and prosperity for an enterprise is the development and implementation of a risk management program, instrument which is currently underestimated, but brings many benefits to the enterprises that apply it.
The important aspects faced within the scientific approach of this paper are the analysis and evaluation of the ways for determining the bankruptcy risk, starting from the symptoms of a company in difficulty, and by reviewing the models useful in the bankruptcy risk analysis; the last point of the paper is dedicated to diagnosing and analyzing the risks that lie on two companies operating in the same geographical area, that have the same object of activity – the cars maintenance and repair, and approximately the same opportunities and threats.
Through this paper, the authors propose an analysis of how to identify the risks that may affect the smooth running of an enterprise, highlighting the importance of applying the methods of identifying bankruptcy risks for a "long" and "healthy" business life.

Key words: *bankruptcy risk, liquidity, solvency*

J.E.L. classification: *M41, M49*

I. INTRODUCTION

The perception of risk is "old since the world", and in the specialized economic literature many attempts have been made in trying to define this concept.

The *classical risk theory*, whose leading exponents are John Stuart Mill and Senior, identifies the risk as being an element whose manifestation is uncertain but possible, which always arises in socio-human activities, the consequences of which are damaging and irreversible.

The representatives of the *neoclassical theory*, A. Marshall and A. Pigou, express the idea that the enterprise, operating under uncertainty conditions, has to take into account the following aspects: the size of the benefit it expects and the size of its possible variations, the attitude of the entrepreneur being identified with the concept of maximum profitability. This implies that if, for example, there is a need to choose between two investment projects that bring the same profit, will be chosen the project in which the profit variations are the smallest. Completing the neoclassical theory, John M. Keynes turned his attention to the notion of "risk inclination", meaning the consideration of the risk-based satisfaction factor, which suggests the following conclusion: To obtain a high profit, the entrepreneur may resort to risk. **(Muntean and Bălănuţă, 2010)**.

Risk is also a social, political or natural notion whose origin is in the possibility of a future action generating losses due to incomplete information when deciding or due to some unconscious of logical reasoning **(Bogdan, 2004).**

One of the most comprehensive definitions of risk can be found in the Meriam Dictionary - Webster's Collegiate Dictionary, Eleventh Edition, where the risk is defined as follows:

- "the possibility of losing or suffering a damage;
- someone or something that creates or suggests a danger (hazard);
- chance of loss or danger for the object of an insurance contract, also the probability degree of such a loss;
- the possibility of an investment (stock or merchandise) to lose its value."

The risk is present in every human action, and regarding the enterprise, the risk is equally *attractive* - by the possibility of gains when is assumed and managed, and *frightening* - by the possibility of recording economic or financial losses. In any field the enterprise will operate, it would be very important to identify, understand, evaluate and take the necessary measures to counteract risks or at least dimishing the effects of their production.

The *bankruptcy risk* is a possible occurrence of the impossibility of honoring all outstanding debts of uncovered losses that depletes the equity, and it remains for the borrowed capital to cover them. The main cause of the bankruptcy risk is considered to be the faulty management of some enterprises.

The bankruptcy risk assessment can be made in the static and dynamic analysis of the financial balance which highlights the past performance of the enterprise, but a global assessment of its future becomes more and more interesting for the company's management, especially for its business partners, occurring more evident the need for developing predictive bankruptcy methods **(Mihalciuc, 2009)**.

II. SYMPTOMS OF A BUSINESS ON THE BRINK OF BANKRUPTCY

The underlying causes of the enterprise bankruptcy are very different, but they lead every time to a reduction in its profitability and liquidity. In this case, the enterprise sees itself on the difficulty of honoring in time debts to various partners, creditors, employees, because it does not have sufficient liquidity.
Symptoms converging to bankruptcy are outlined in *Figure 1*.

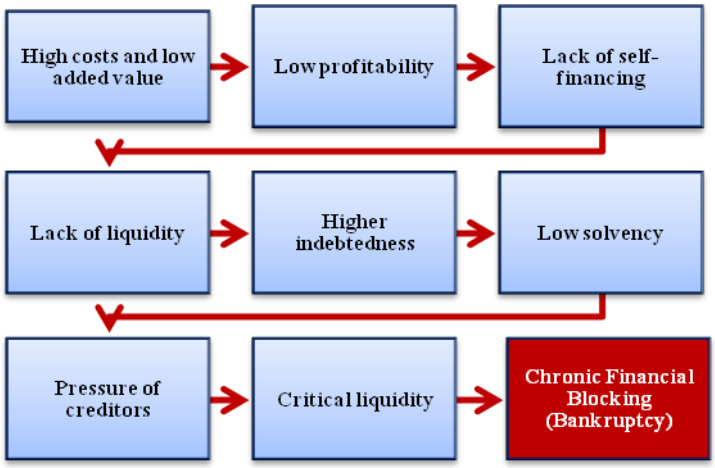

Figure 1 - Symptoms of enterprise bankruptcy
Source: Personal elaboration

Taking into account the importance of the profitability - liquidity relationship for determining the health of an enterprise, four groups of enterprises are presented in *Table 1*.

Table 1 The financial health of an enterprise

Liquidity	Profitability	
	(+)	(-)
(+)	1 – good shape	3 – chronic illness - in difficulty
(-)	2 – passenger illness - in difficulty	4 – close end - in difficulty

Source: Mironiuc, M., Analiză economico – financiară. Elemente teoretico – metodologice și aplicații

"The importance of bankruptcy prediction and understanding of causes is, in the end, a practical and pragmatic issue. The direct costs of bankruptcy are low compared to the company's diminished value. Any progress in identifying the causes of bankruptcy and in the predictive capacity of models can minimize the costs discussed" **(Dumitru, 2003).**

III. MODELS USED IN FALIMENT RISK ANALYSIS

The bankruptcy risk can be addressed in a "classical manner" through the patrimonial methods, whereby the enterprise proves its solvency status if the financial equilibrium equations are respected (Fixed Assets = Permanent Capital; Current Assets = Current Liabilities). The operational instruments used in classical

bankruptcy risk radiography are: the working capital, the solvency rates and the liability structure rates. These tools are briefly presented in *Table 2.*

Table 2. Classic indicators for bankruptcy risk identification

Group	Indicator	Calculation relationship	Interpretation	Values
Passive structure rates	Financial stability rate	$R_{fs}=\frac{Permanent\ capital}{Total\ passive}\times 100$	Suggests the link between the permanent capital that the firm has in a stable manner (for a period of at least one year) and the total patrimony.	Values considered normal are between 50%-60%, highlighting the permanent nature of funding.
	Global financial autonomy rate	$R_{gfa}=\frac{Equity}{Total\ passive}\times 100$	Reflects the company's ability to deal with financial commitments - the patrimonial solvency rate.	Satisfactory value is considered around 33%.
	Rate of financial autonomy on time	(1) $R_{fat}=\frac{Equity}{Permanent\ capital}\times 100$ (2) $R_{fat}=\frac{Equity}{Long-term\ debts}\times 100$	It is considered that in order to ensure financial autonomy, the equity must represent at least half of the permanent capital. $R_{fat(1)}\geq 50\%$, and $R_{fat(2)}\geq 1$.	
	Global indebtedness rate	(1) $R_{gi}=\frac{Total\ liabilities}{Total\ passive}\times 100$ (2) $R_{gi}=\frac{Total\ financial\ liabilities}{Equity}\times 100$	Measures the weight of debt in the company's patrimony and reflects the degree of dependence of the enterprise on financial resources from third parties.	$R_{gi(1)}<50\%$ (66% depending on some authors) $R_{gi(2)}< 200\%$
Solvency rates	General solvency rate	$R_{gs}=\frac{Total\ assets}{Total\ liabilities}$	Shows the extent to which the enterprise's total assets can cover its total debts.	The acceptable minimum level is 1.66, but the normal value is at least 2.00.
	Financial solvency rate	$R_{fs}=\frac{Total\ assets}{Total\ financial\ liabilities}$	Shows the extent to which the enterprise's total assets can cover total financial liabilities.	The acceptable minimum level is 2.00 in order to have the payment capacity.
Liquidity rates	Working capital	FR = Current assets – Short-term liabilities	"It is the amount with which the total of current assets exceeds the total of short-term debts." **(Ionescu, 2003)**	
	General liquidity	$GL=\frac{Current\ assets}{Current\ passive}$	Expresses the value of the margin granted to the enterprise by its current assets in meeting its current liabilities.	The minimum admissible value should range from 1.2 to 1.8. If the indicator is above 1.00, the enterprise can pay for the current liabilities, the consequence of a positive working capital.
	Low/Reduced liquidity	$Lred=\frac{Current\ assets-Stoks}{Short-term\ liabilities}$	Suggests the ability of repaying the short-term liabilities.	The value considered comfortable is 0.5.
	Intermediate liquidity	$LI=\frac{Cash+Certain\ Claims}{Current\ passive}$	The acid test – Quick Ratio.	The report ratios should be between 0.8 and 1.
	Immediate liquidity	$Li=\frac{Cash+Investment}{Current\ passive\ (immediately\ payable)}$	Expresses the ratio of liquid assets to current liabilities.	The minimum value between 0.2 and 0.3 reflects a liquidity guarantee.
	Sight liquidity	$Ls=\frac{Cash\ in\ cash\ desk\ and\ accounts}{Short-term\ bank\ loans}$	Suggests the extent to which short-term bank loans can be covered by cash desk and bank amounts.	Reference values range from 0.85 to 1.15.

Source: personal elaboration

Table 3. Models of using the score function to determine bankruptcy risk

Model	Score function (Z)	Explanations	Cases	Interpretation of the financial situation
The Altman Model - useful for analyzing listed companies	$Z = 1,2R_1+1,4R_2+3,3R_3+0,6R_4+0,999R_5$	$R_1 = NWK/Total\ assets$ $R_2 = Res./Total\ assets$ $R_3 = Gross\ profit/Total\ assets$ $R_4 = Equity/Total\ liabilities$ $R_5 = Turnover/Total\ assets$	**Z≤1,8**	Imminent bankruptcy state
			1,8<Z≤3	Difficulty state
			Z>3	Solvable enterprise
Conan Holder Model – offers results in the prediction of short-term enterprises evolution	$Z = 0,24R_1+0,22R_2+0,16R_3-0,87R_4-0,1R_5$	$R_1 = GOS/Total\ liabilities$ $R_2 = Permanent\ capital/Total\ assets$ $R_3 = Current\ assets/Total\ assets$ $R_4 = Financial\ expenses/Turnover$ $R_5 = Staff\ expenditures/Added\ Value$	**Z>0,16**	Very good condition, bankruptcy risk less than 10%.
			0,1<Z<0,16	Bankruptcy risk between 10% and 30%.
			0,04<Z<0,10	Alert, risk from 30% to 65%.
			-0,15<Z<0,04	Danger, bankruptcy risk between 65% and 90%.
			Z<-0,05	Failure, risk higher than 90%.
The Bank of France Balance Sheet Model (1984) - can predict the bankruptcy risk for a 3 year period	$100Z = -1,255R_1+2,003R_2-0,824R_3+5,221R_4-0,689R_5-1,164R_6+0,706R_7+1,408R_8-85,544$	$R_1 = Financial\ expenses/EBE$ $R_2 = Permanent\ capital/Total\ assets$ $R_3 = Self-financing\ cap./Total\ liabil.$ $R_4 = GOS/Turnover$ $R_5 = Suppliers * 360/Supply$ $R_6 = \Delta AV/AV_0$ $R_7 = Av.\ balance\ clients * 360/Turnover$ $R_7 = Tangible\ investments/Added\ value$	**Z>0,125**	Normal situation, bankruptcy risk between 10% and 45%.
			-0,25<Z<0,125	Uncertain situation, bankruptcy risk between 45% and 70%.
			Z<-0,25	Risk situation, bankruptcy risk between 70% and 100%.
B. Model – Băilești	$B = 0,444G_1+,0909G_2+0,0526G_3+0,0333G_4+1,144$	$G_1 = Current\ assets/Current\ passive$ $G_2 = Net\ pr.+Depr./Credit\ rate+Interest$ $G_3 = Turnover/Clients$ $G_4 = (Profit/Cost)\times 100$	**B<0,5**	Imminent bankruptcy.
			0,5<B<1,1	Limited area.
			1,1<B<2,0	Intermediate area.
			B>2,0	Favorable area.
Anghel Model (2002) – is a variation of the score function applicable to the Romanian economy	$A = 5,676 + 6,3718X_1+5,3932X_2 – 5,1427X_3 – 0,0105X_4$	X_1 – rate of return X_2 – debt coverage ratio from cash-flow X_3 – leverage ratio X_4 – length of obligations payment	**A<0**	High probability of bankruptcy.
			0<A<2,5	Uncertainty area.
			A>2,5	Non-bankruptcy area.

Source: personal elaboration

Several methods are known - scoring of radiography and bankruptcy risk diagnosis, some of which predict the vulnerability of the enterprise, and others anticipating long-term insolvency (bankruptcy), such as: Altman Model, Conan-Holder Model, Bank of France Model, Romanian Commercial Bank, shown in *Table 3.*

The previously presented risk analysis methods allow performance measurement of the company's past, providing little information on the future.

"For the characterization and classification of companies in the category of those in difficulty and those without problems, a series of studies has been developed, especially in the USA and France, based on statistical surveys, based on samples of enterprises in difficulty, being established indicators with a higher predictive power" **(Barbulescu, 2002).**

Predictive models for bankruptcy risk assessment were provided through the "scoring" method, which is based on the statistical techniques of the discriminated analysis. Calculation of the score function is based on a set of financial ratios determined on enterprises that have different behaviors to the bankruptcy risk.

Table 4 The BCR model of enterprise financial valuation model

No.	Valuation criteria	Value limits	Points
1	Patrimonial liquidity (L_P) = $\frac{\text{Short-term assets}}{\text{Short-term passive}}$	<80%	-2
		80÷100%	-1
		100÷120%	+1
		120÷140%	+2
		140÷160%	+3
		>160%	+4
2	Solvency (S) = $\frac{\text{Equity}}{\text{Passive}}$	<30%	0
		30÷40%	+1
		40÷50%	+2
		50÷60%	+3
		60÷70%	+4
		70÷80%	+5
		>80%	+6
3	Financial Profitability (R_F) = $\frac{\text{Gross profit}}{\text{Equity}}$	<0	0
		0÷10%	+3
		10÷30%	+4
4	Rotation of current assets (Nca) = $\frac{\text{Turnover}}{\text{Current assets}}$	<5	+1
		5÷10	+2
		>10	+4
5	Market Dependency (Supply - Selling) Supply - from country (Supp.c) - from import (Supp.i) Sale - In Country (Sal.c) - On Export (Sal.e)	Supp.c>50%;Sal.e>50%	+4
		Supp.i>50%;Sal.e>50%	+3
		Supp.c>50%;Sal.c>50%	+2
		Supp.i>50%;Sal.c>50%	+1
6	Guarantees	Pledged deposits	+4
		Pledges, mortgages	+3
		Acquisitions from credits	+2
		Divestment of claims	+1

Source: personal elaboration

The model of the Romanian Commercial Bank, is taking into account the specificity of the domestic economy, uses a group of rates and indicators based on a score grid with 6 criteria presented in *Table 4.* Depending on the score obtained the situation of the enterprise is presented in *Table 5*

Table 5 Interpretation of the BCR model score

Enterprise category	Total points	Economic-financial situation – risk degree
A	>20	Very good - credit can be granted
B	16÷20	Good - credit can be granted
C	11÷15	Oscillating - presents high risk
D	6÷10	Exceptional risk - there are no guarantees for granting credits
E	0÷5	Extremely precarious - without guarantees for granting credits

Source: personal elaboration

Given the current economic context, it is quite difficult to try to construct a score function for predicting the bankruptcy of Romanian enterprises, primarily, due to the fact that the bankruptcy process has completely different coordinates compared to most countries where there are developed methodologies of the Z score function. "However, banks have set up scoring grids on the financial condition of businesses to grant or stop lending; suppliers are interested in the financial situation of customers with payment in installments, and investors are interested on the financial situation of the enterprises they want to invest in" **(Mihalciuc, 2009)**.

IV. FALIMENT RISK ANALYSIS OF SC OMEGASERVICE SRL AND SC GAMASERVICICE SRL

The full assessment of the stability degree of an enterprise and the probability of accumulating losses leading to the anticipation of the financial situation deterioration to the point of bankruptcy risk, can be achieved through indicators that highlight the quality of economic and financial activity: the passive structure rates, the solvency rates and the working capital. Investigating the bankruptcy risk in classical terms for the companies analyzed is presented in *Table 6.*

Table 6. Bankruptcy risk analysis - classic indicators

Name	No.	Indicators	Financial exercise			Absolute deviation (±Δ)	Relative deviation (Δ%)
			2014	2015	2016		
SC OMEGASERVICE SRL	1	Equity	16.177.429	19.616.492	18.803.660	-812.832	-4,14
	2	Total Passive (TP)	25.105.130	23.884.244	24.582.981	698.737	2,92
	3	Long-term liabilities	2.172.123	381.400	1.056.536	675.136	177
	4	Permanent capital (1+3)	18.349.552	19.997.892	19.860.196	-137.696	-0,68
	5	Total liabilities	8.919.838	4.259.963	5.779.621	1.519.658	35,67
	6	*Financial stability rate (R_{fs})(4/2)(%)*	*73,09*	*83,72*	*80,78*	-	-
	7	*Global financial autonomy rate (R_{gfa}) (1/2)(%)*	*64,43*	*82,13*	*76,49*	-	-
	8	*Rate of financial autonomy on time (R_{fat1})(1/4) (%)*	*88,16*	*98,09*	*94,68*	-	-
	9	*Rate of financial autonomy on time (R_{fat2})(1/3) (%)*	*744*	*5.143*	*1.779*	-	-
	10	*Global indebtedness rate (R_{gi}) (5/2) (%)*	*35,52*	*17,83*	*23,51*	-	-
	11	*General solvency rate (R_{gs})(2/5)*	*2,81*	*5,6*	*4,25*	-	-
	12	Working capital	1.632.150	4.349.310	2.654.695	-1.694.615	-38,96
	13	Currents asset	8.351.599	8.079.412	7.377.780	-701.632	-8,68
	14	Current passive	6.747.715	3.878.563	4.723.085	844.522	21,77
	15	General liquidity (GL) (13/14)	1,23	2,08	1,56	-	-
	16	Cash and certain claims	4.432.554	4.229.668	3.519.856	-709.812	-16,78
	17	Intermediate liquidity (The acid test – Quick Ratio) (16/14)	0,65	1,09	0,74	-	-
SC GAMASERVICE SRL	1	Equity	19.394.300	19.002.697	18.935.959	-66.738	-0,35
	2	Total Passive (TP)	24.596.627	24.171.940	25.191.999	1.020.059	4,22
	3	Long-term liabilities	650.819	1.304.431	1.347.864	43.433	3,32
	4	Permanent Capital (1+3)	20.045.119	20.307.128	20.283.822	-24.306	-0,11
	5	Total liabilities	5.197.741	5.154.519	6.248.582	1.094.063	21,22
	6	Financial stability rate *(R_{fs}) (4/2)(%)*	*81,49*	*84,01*	*80,51*	-	-
	7	Global financial autonomy rate *(R_{gfa}) (1/2)(%)*	*78,85*	*78,61*	*75,16*	-	-
	8	Rate of financial autonomy on time *(R_{fat1}) (1/4) (%)*	*96,75*	*93,57*	*93,35*	-	-
	9	Rate of financial autonomy on time *(R_{afa2})(1/3) (%)*	*2.979*	*1.456*	*1.404*	-	-
	10	Global indebtedness rate *(R_{gi}) 5/2)(%)*	*21,13*	*21,32*	*24,80*	-	-
	11	General solvency rate *(R_{gs}) (2/5)*	*4,73*	*4,68*	*4,03*	-	-
	12	Working capital	4.546.922	5.101.526	4.545.802	-555.724	-10,89
	13	Current assets	9.280.834	8.909.845	9.339.756	429.911	4,82
	14	Current Passive	4.546.922	3.850.088	4.900.718	1.050.630	27,28
	15	General liquidity (GL) (13/14)	2,04	2,31	1,9	-	-
	16	Cash and certain claims	4.913.306	3.963.615	3.898.427	-65.188	-1,64
	17	Intermediate liquidity (The acid test – Quick Ratio) (16/14)	1,08	1,03	0,79	-	-

Source: personal elaboration

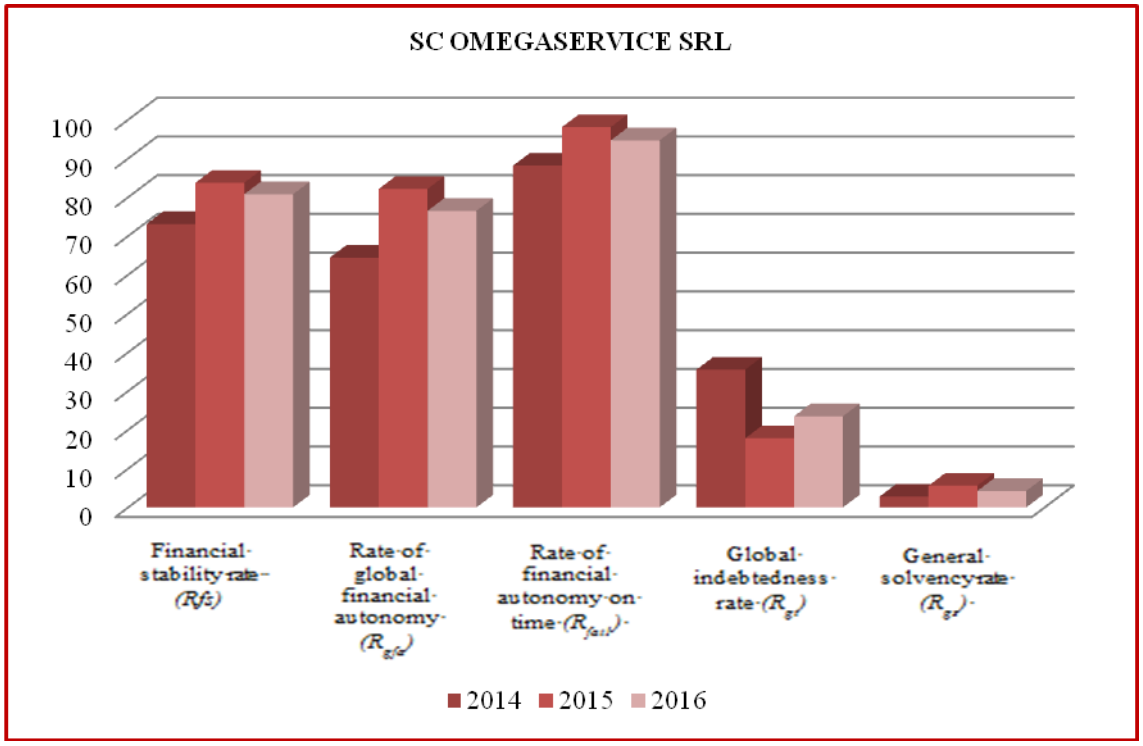

Figure 2 - Evolution of Classical Risk Indicators bankruptcy in SC Omegaservice SRL
Source: personal elaboration

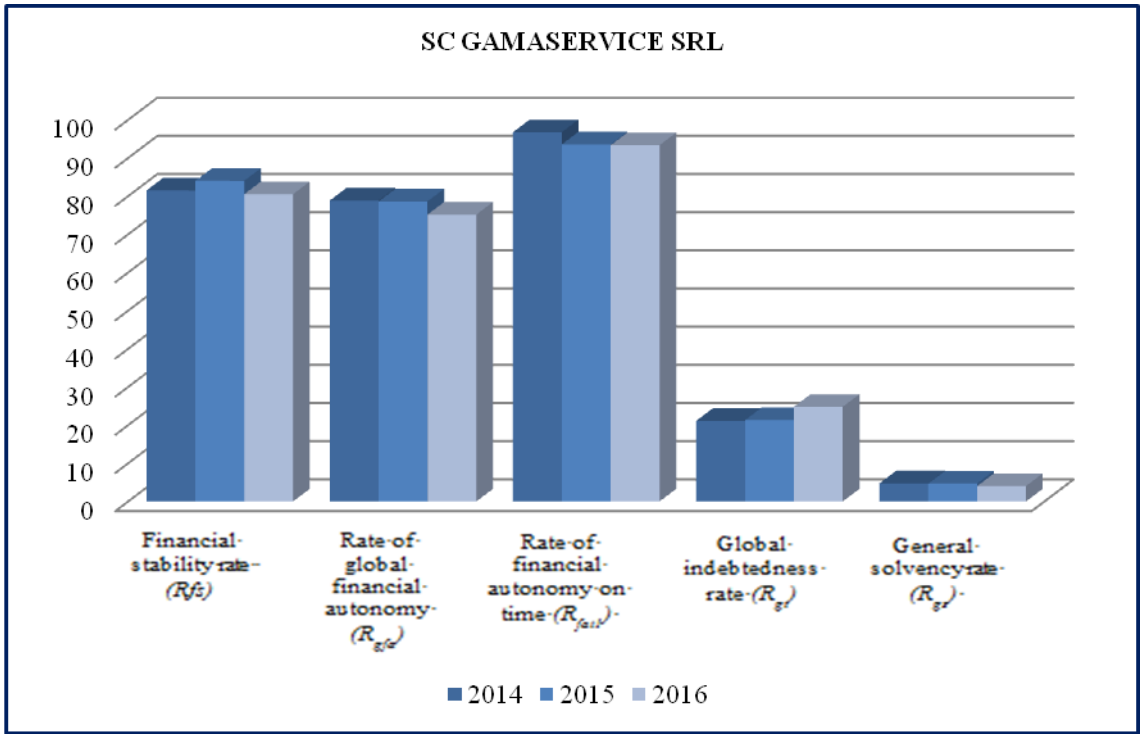

Figure 3 - Evolution of Classical Risk Indicators bankruptcy in SC Gamaservice SRL
Source: personal elaboration

The interpretation of the data provided by the calculation of the classical indicators used in the identification of the bankruptcy risk is presented in *Table 7.*

Table 7. Interpretation of the classical indicators of the bankruptcy risk

SC OMEGASERVICE SRL	SC GAMASERVICESRL
The rate of financial stability reflects a very good situation in terms of the share of permanent capital in total passive, being above the limits considered normal, of 50%-60%, but decreasing from 2015 to 2016.	***The rate of financial stability*** is also in a decreasing trend, from 84% to 80.5%, but still reflects a favorable passive structure above the level considered normal.
Global financial autonomy rate *is above the one considered satisfactory, 33% over the period analyzed.*	***Global financial autonomy rate*** highlights that the company has a share of its equity well above the limit considered to be satisfactory, and will be able to cope with financial commitments.
Rate of financial autonomy on time (1), which expresses the share of equity in the permanent capital; shows during the analyzed period a very good situation of the capital structure, the company does not resort to indebtedness.	***Rate of financial autonomy on time (1),*** shows in the case of this company as well that indebtedness has a very low weight in the structure of permanent capital.
Rate of financial autonomy on time (2) shows the degree of long-term debt coverage from equity, the situation in this case is very good.	***Rate of financial autonomy on time (2)*** shows that long-term debt is covered by more than 1.400% from the equity, which expresses a very good debt situation.
Global indebtedness rate registered by the enterprise is 17.83% in 2015 and increases to 23.51% in 2016, values situated below the level considered satisfactory for this indicator of <50%, expressing its decreasing independence towards the external financials sources.	***Global indebtedness rate*** is 21.32% in 2015 and 24.80% in 2016, suggesting that the company has a low degree of dependency on financial resources from third parties.
General solvency rate is above the acceptable minimum level of 2 in both years of analysis; 5.26 in 2015 and 4.25 in the following year, therefore the total assets of the enterprise cover its total liabilities.	***General solvency rate*** of 4.68 in 2015 and 4.03 in 2016 highlights that the company's total assets can cover its total liabilities.
Working capital is positive, but declining by 38.96% in the analyzed period, expressing the amount by which the total of current assets exceeds short-term liabilities. The decrease in the working capital is due to the decrease of the current assets of 8.68%, simultaneous with an increase of the current liabilities by 21.77%.	***Working capital*** is also positive, and register a decrease of 10% in 2016 compared to 2015, a decrease explained by the 27% increase in short-term liabilities and a 5.49% increase in current assets.
General liquidity is the result of a positive working capital, the values above 1 recorded in both 2014 (1.23), in 2015 (2.08) and 2016 (1.56), indicating that the enterprise can cover the current liabilities level from current assets.	***General liquidity*** register a value of 2.04 in 2014, 2.31 in 2015 and 1.9 in 2016, is higher than the value of 1 which expresses a good liquidity for the enterprise concerned.
Intermediate liquidity (The acid test – Quick Ratio) (acceptable values between 0.8 and 1) has a worrying values in 2014 (0.65), reaching de value of 1.09 in 2015, which indicates that the enterprise can cover current passive from certain claims and cash and receivables, and in 2016, the value of 0.74 of this indicator shows a decrease of the intermediate liquidity.	***Intermediate liquidity (The acid test – Quick Ratio)*** – this indicator shows a slight deterioration in the analyzed period from 1.08 to 1.03 and then to 0.79 in 2016, suggesting a reduction of intermediate liquidity.

Source: personal elaboration

The use of the profit rates and financial equilibrium system highlights the strengths and weaknesses of financial management, provides information on the current state of the enterprise, but does not provide the possibility of forecasting bankruptcy risk. Experience shows that bankruptcy is not a phenomenon that suddenly occurs in the life of an enterprise, existing some symptoms that indicate the possibility of this disease. Thus, in order to have a vision of the bankruptcy risk for the two analyzed enterprises, the Conan - Holder model will be applied for determining the score function, presented in *Table* 8, which provides important information on the short-term business development.

From the information provided in *Table no. 8* it can be seen that companies which are the object of the bankruptcy risk analysis have a bankruptcy risk of less than 10%, given that the Z score function obtained by applying the Conan-Holder model is greater than 0.16 in the analyzed period. In conclusion, the values of the score function, although decreasing in both cases, SC Omegaservice SRL and SC Gamaservice SRL, place the two enterprises outside the bankruptcy risk area in the near future.

Table 8 The Conan - Holder Bankruptcy Risk Assessment Model for SC Omegaservice SRL and SC Gamaservice SRL

Name	No.	Indicators	Financial exercise		
			2014	2015	2016
SC OMEGASERVICE SRL	1	Gross operating surplus	2.284.829	1.494.364	1.155.210
	2	Total liabilities	8.919.838	4.259.963	5.779.621
	3	R_1=*GOS*/Total liabilities *(1/2)*	*0,25*	*0,35*	*0,199*
	4	Permanent capital	18.349.552	19.997.892	19.860.196
	5	Total assets (TA)	25.105.130	23.884.244	24.582.981
	6	R_2 = *Permanent capital/Total assets (4/5)*	*0,73*	*0,837*	*0,807*
	7	Current assets	8.351.599	8.079.412	7.377.780
	8	R_3 = *Current assets/Total assets (7/5)*	*0,332*	*0,338*	*0,300*
	9	Turnover	47.421.415	40.352.836	39.201.525
	10	Financial expenses	1.038.298	213.458	219.494
	11	R_4 = *Financial expenses/Turnover (10/9)*	*0,021*	*0,005*	*0,005*
	12	Staff expenditures	3.150.526	3.188.772	3.669.737
	13	Depreciations and provisions expenses	2.195.649	1.868.015	2.163.791
	14	Expenses with taxes and similar incomes (excluding corporate income tax)	212.571	451.866	769.617
	15	Interest expenses	514.312	141.811	119.057
	16	Operating result	2.284.829	1.494.364	1.155.210
	17	Added Value (12-16)	8.357.887	7.144.828	7.877.412
	18	R_5=*Staff expenditures/Added value*	*0,376*	*0,446*	*0,465*
	19	**$Z = 0,24R_1+0,22R_2+0,16R_3-0,87R_4-0,1R_5$**	**0,33**	**0,37**	**0,32**
SC GAMASERVICE SRL	1	Gross operating surplus	2.637.912	799.850	564.706
	2	Total liabilities	5.197.741	5.154.519	6.248.582
	3	R_1=*GOS/* Total liabilities *(1/2)*	*0,5*	*0,155*	*0,09*
	4	Permanent capital	20.045.119	20.307.128	20.283.822
	5	Total assets (TA)	24.596.627	24.171.940	25.191.999
	6	R_2 = *Permanent capital/Total assets (4/5)*	*0,81*	*0,84*	*0,806*
	7	Current assets	9.280.834	8.909.845	9.339.756
	8	R_3 = *Current assets/Total assets (7/5)*	*0,377*	*0,368*	*0,370*
	9	Turnover	47.754.914	41.848.931	38.588.307
	10	Financial expenses	464.294	380.670	419.390
	11	R_4 = *Financial expenses/Turnover (10/9)*	*0,009*	*0,009*	*0,010*
	12	Staff expenditures	3.079.199	3.034.132	3.201.977
	13	Depreciations and provisions expenses	2.205.579	2.386.101	2.391.750
	14	Expenses with taxes and similar incomes (excluding corporate income tax)	239.302	278.274	331.740
	15	Interest expenses	214.086	195.061	246.105
	16	Operating result	2.637.912	799.850	564.706
	17	Added Value (12-16)	8.376.078	6.693.418	6.736.278
	18	R_5=*Staff expenditures/Added value*	*0,367*	*0,453*	*0,475*
	19	**$Z = 0,24R_1+0,22R_2+0,16R_3-0,87R_4-0,1R_5$**	**0,40**	**0,33**	**0,31**

Source: personal elaboration

V. CONCLUSIONS

The acceptable level of risk refers to the maximum risk that the manager is willing to assume, because it is necessary to ensure that a minimum return is provided to justify the costs of the investment. In conclusion, there is not a single acceptable level of risk; it is different according to the concrete conditions of each economic activity and equally to the managers' attitude towards risk.

Concluding, the degree of success of an enterprise is determined, to the greatest extent, by the manager's choices when deciding on the risks he would be willing to assume for an expected benefit level.

VI. REFERENCES

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